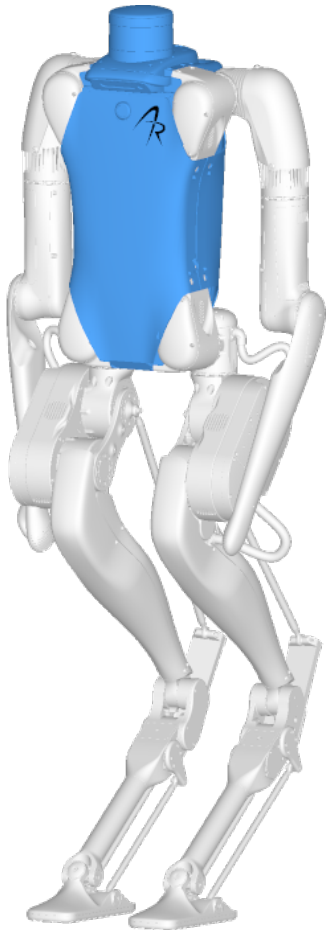
Overview

This page explains the terminology used to describe different parts of Digit along with basic precautions that should be taken while handling your Digit.

Torso

The torso of Digit, shown below, contains Digit's computer, power source and vision sensors.



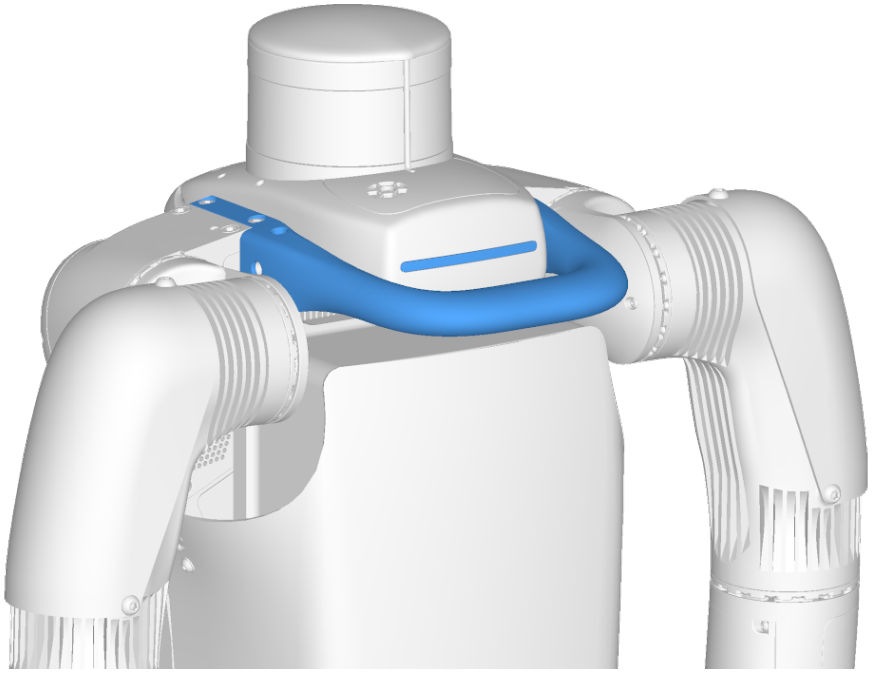
Handle

The handle is located on the back of the torso above the battery compartment (see picture below) and should be used when lifting, carrying or moving Digit's torso. It is designed to be easy to grab and to keep your hand away from sharp edges or pinch points when used.

Caution

Digit is too heavy to be safely carried when fully assembled while keeping hands and fingers

away from hazardous pinch-points. When moving an unpowered Digit, a cart, or similar device should be used, or the limbs should be removed from the torso and all pieces carried separately.



Power Button

The power button is located on the left side of the torso just above the first leg joint (see picture below) and has the following functions:

- Pressing and releasing the button when Digit is powered off will turn power on.
- Pressing and releasing the button when Digit is powered on will request a safe shutdown. The robot will transition to a safe position and then turn power off.

Important

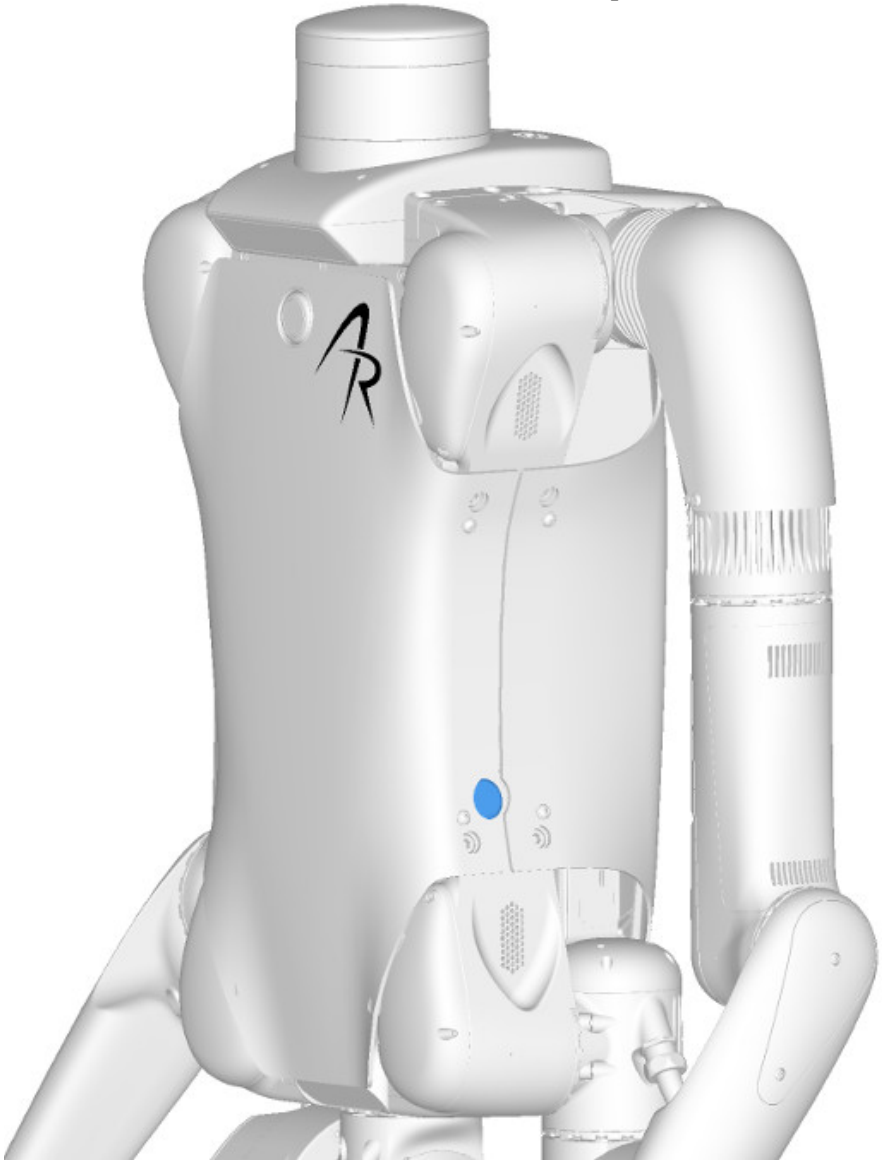
The preferred method of powering off the robot is to command an action-shutdown or an action-sit from the JSON API. The power switch should only be used to turn off the robot when it is not responding to any remote commands.

Caution

The robot should not be approached while moving. If the robot is not responding to remote commands, wait for it to stand, then cautiously approach the robot from the side and press the power switch to trigger a shutdown.

Caution

Pressing and holding the power button for 5s when Digit is powered on will immediately cut power. If Digit is not responding to any other commands and does not shut down when the power switch is pressed, move to a safe distance and use the Emergency Stop to disable the robot. Once Digit is disabled and safe to approach, you can hold the power button to turn off power.



LED Strip

The LED strip displays useful information about the robots charge level and current operating state and is located on the back of the torso above the battery compartment (see picture above).

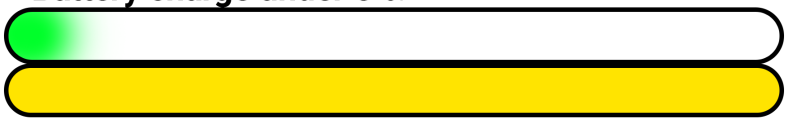
The functions of the LED bar are as follows:

Solid green: Robot is active, LED's turn off to indicate battery charge remaining.

Solid blue: Robot is inactive, LED's turn off to indicate battery charge remaining.

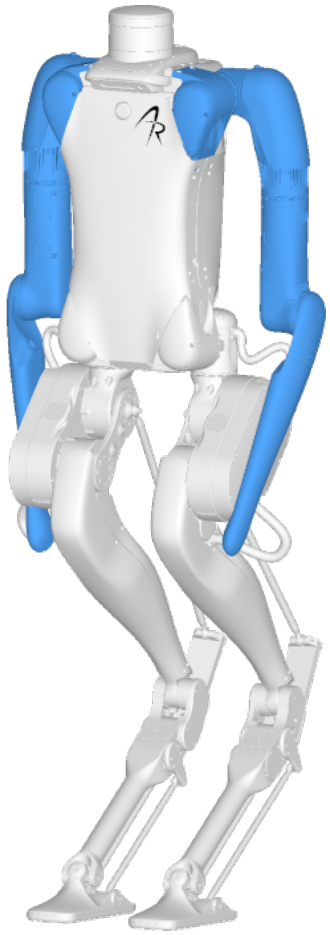
Solid purple: Robot is off and charging, LED animation shows the batery level fill up.

Flashing between single LED and solid yelow: Battery charge under 5%.

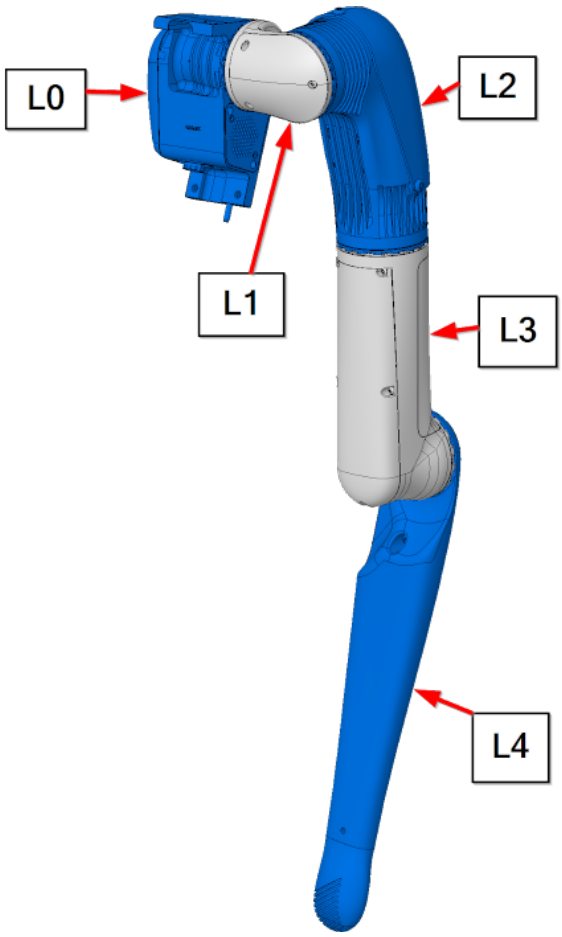


Flashing between single LED and solid red: Soft shutdown mode activated.

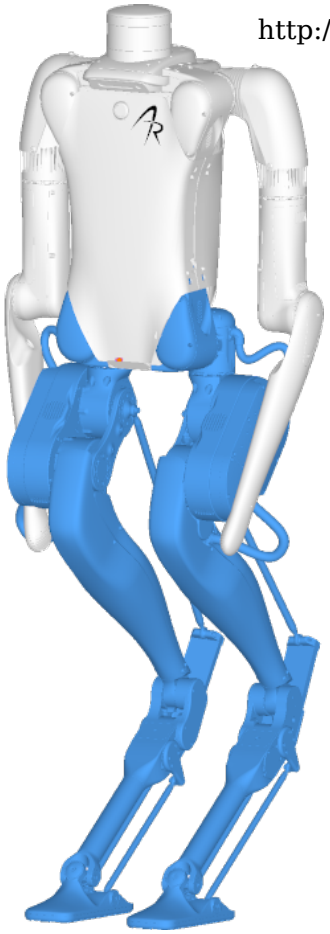
Arms



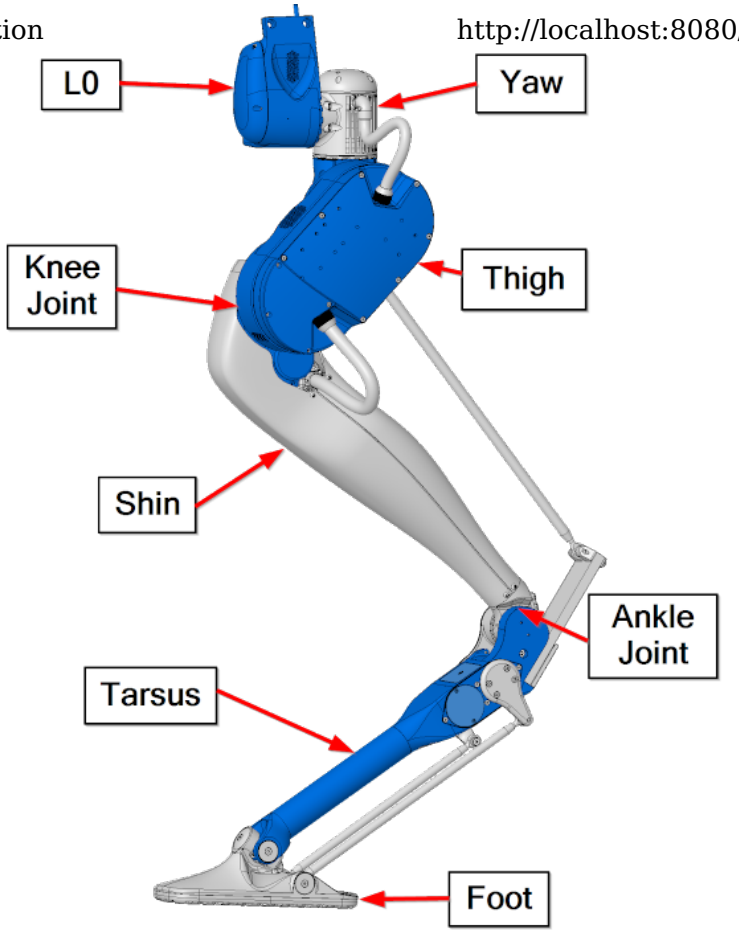
The rigid bodies that make up Digit's arms are named as shown below. For example, L0 is the first link of the arms and is fixed to the core.



Legs

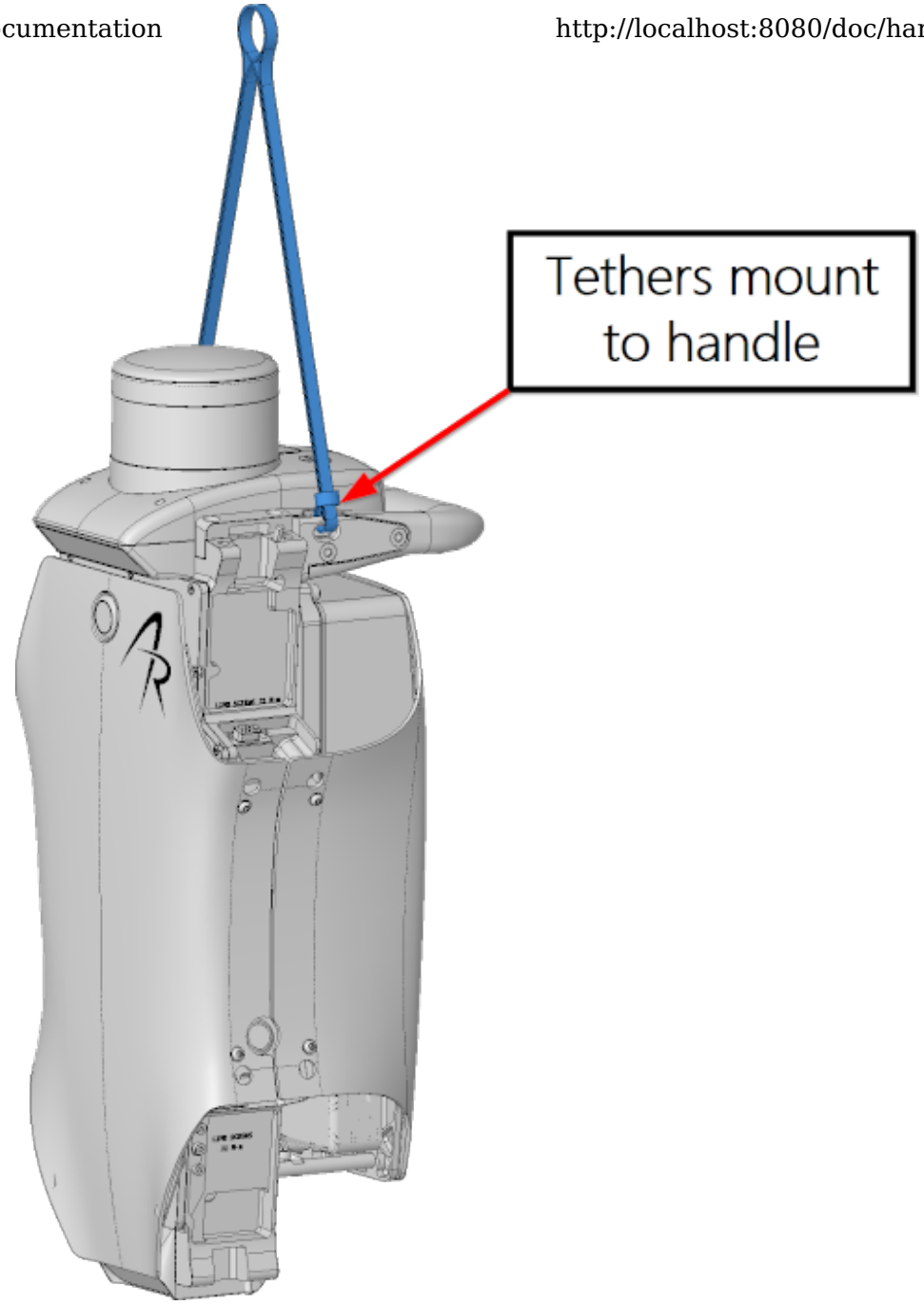


The rigid bodies that make up Digit's legs are named as shown below. Note that the morphology of Digit's leg is derived from birds, hence the location of the knee and ankle joints isn't immediately obvious.



Tethers

When testing new behaviors Digit may be used with the included straps to reduce the risk of the robot suffering damage in the event of a fall. For structural reasons both straps should be used at the same time.



Precautions

Important

Several of Digit's systems are inherently sensitive and must be handled with care. The appropriate precautions for these systems are outlined below.

ESD

Important

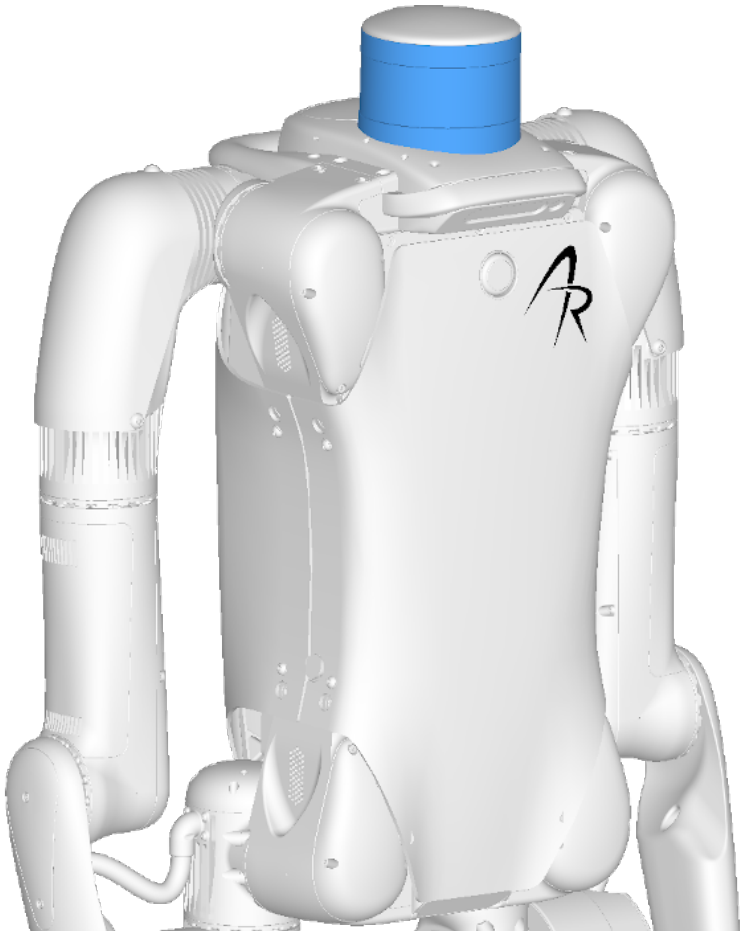
To reduce the likelihood of shocking the robot through an ESD discharge please touch a metal part of the robot with your hand before interacting with any of the external connectors.

Additionally, when working with individual limbs, avoid touching the DSUB connectors on either the torso or the limb.

LiDAR

Important

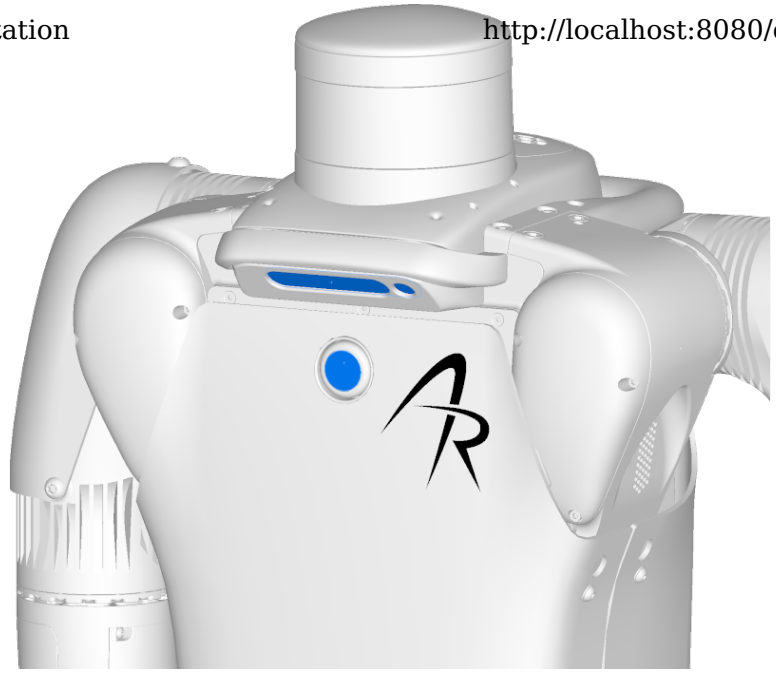
The LiDAR is sensitive to sudden impacts and sharp objects. Avoid resting Digit on the ground in a manner that would scratch the glass. Avoid bumping the LiDAR into hard objects while handling the torso or a completed Digit.

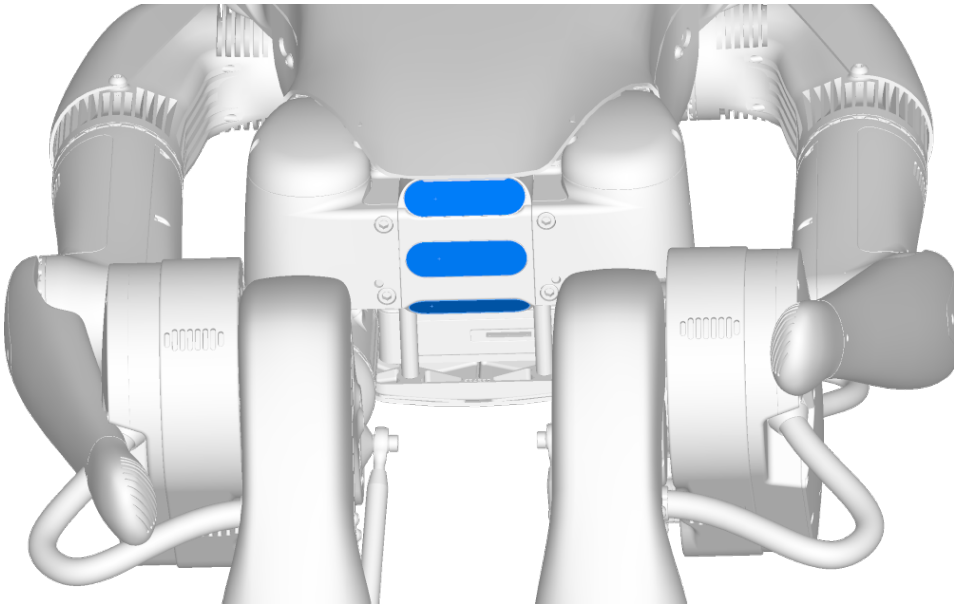


Cameras

Important

Digit relies on a number of cameras to perceive the world. Avoid handling Digit in a way that might scratch or chip these surfaces.





Conduits

Important

The conduits shown below allow wires to pass between Digit's torso and legs. Avoid pulling on the conduits when handling Digit.